

Name: _____

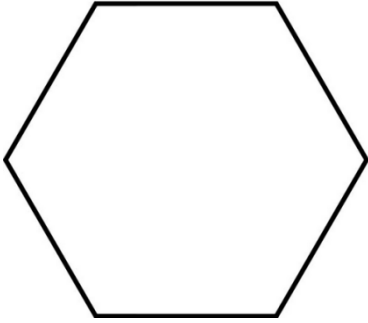
Geometry CP: Marking Period 4 Extra Credit

3

Birth date ____ / ____ / ____
(month) (day) (year: minus 1900)

Show all work. You must complete all problems to earn any credit. Half a percentage point per problem.

1. A regular hexagon has side lengths of x inches (your birth month). Find the area in exact form of the regular hexagon.

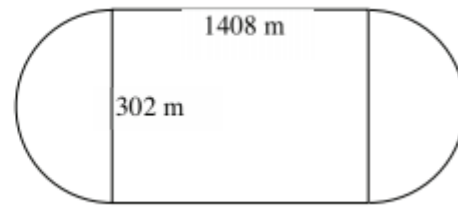


2. You are standing 140 feet from the base of a building, and use your clinometer to measure the angle of elevation to the top of the building at x° ____ (your birth day) . Your eye height is ____ feet ____ inches.

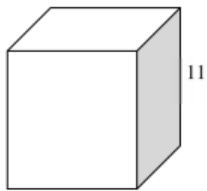
a. Draw and label a diagram to represent this situation.

b. How tall is the building?

3. Kennedy and Tess are constructing a racetrack for their horses. The track encloses a field that is rectangular, with two semicircles at each end. A fence must surround this field. How much fencing will Kennedy and Tess need?

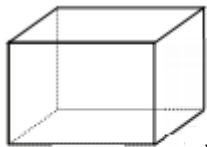


4. Calculate the volume and surface area.



A cube.

5. Calculate the volume and surface area of each prism.



Your birth year (minus 1900) ____

Your birth month ____

Your birth day ____

The base is a rectangle.

6. Given: $\overline{OE} \perp \overline{MP}$, \overline{OE} bisects $\angle MOP$
Prove: $\triangle MOE \cong \triangle POE$

